

REMARKS

Claims 1-8 and 34-55 are now pending in this Application. Claims 1, 40, 54, and 55 are an independent claim and the remaining claims are dependent claims. Claims 13-32 have been cancelled without prejudice and claim 33 had been previously cancelled without prejudice.

Claims 1-32 were rejected under 35 U.S.C. §102(e) as being anticipated by Elwalid, et al., U.S. Patent No. 6,353,616 B1 (hereinafter Elwalid). The Applicants respectfully disagree with this contention and assert that the present claimed invention is not anticipated by any disclosure in Elwalid. The Applicants believe that the claims as presented are in condition for allowance. A notice to this affect is respectfully requested.

The Applicants have amended claim 1 to relate to receiving a first RSVP bandwidth reservation request associated with application data of a session of data communication, the first RSVP bandwidth reservation request distinct from the application data. The Applicants have also amended claim 1 to relate to receiving bandwidth allocation adjustment information, within a second RSVP bandwidth reservation request, associated with application data of the session of data communication and during the session of data communication, the second RSVP bandwidth reservation request distinct from the application data. Support for the amendment is found in the specification on page 17, line 27 through page 18, line 7. The Amendment does not add new matter to the application and clarifies the nature of the invention.

New claims 34 and 35 relate to labeling queue entries of a queue used to store application data transported through the data communications device. Support for the claims is found in the specification on page 22, line 30 through page 24, line 3. The new claims do not add new matter to the application.

New claims 36 and 38 relate to examining information associated with application data of the session of data communication and depositing application data of the session of data communication into the second percentage of available data storage locations where each of the second percentage of available data storage locations has an identity corresponding to the information associated with the application data. Support for the

claims is found in the specification on page 23, line 27 through page 24, line 4. The new claims do not add new matter to the application.

New claims 37 and 39 relate to examining a data stream identification field within a header of the application data of the session of data communication. Support for the claims is found in the specification on page 24, lines 4-18. The new claims do not add new matter to the application.

Examiner Interview

On June 9, 2003, the Attorneys for the Applicants conducted a telephone interview with Examiner Thien Tran to discuss the Applicants' claims and the claim rejections in light of the cited Elwalid reference. The Attorneys for the Applicants thank the Examiner for his time and consideration. While no agreements were reached with respect to the status of the rejection, with respect to the Elwalid reference, the Examiner's views and the Applicants' views were defined and clarified.

The Elwalid Reference

Elwalid relates to allocation of processing capacity of a router in a packet network to processing Reservation Setup Protocol (RSVP) control messages.¹ During RSVP communications, senders and receivers transmit control messages (e.g., signaling message requests), such as PATH messages, RESV messages, UPDATE messages, and TEAR-DOWN messages.² Elwalid describes a packet network employing an RSVP system having routers that schedule the processing of RSVP control message based in part on link utilization.³ The routers monitor link utilization, for example, as traffic experienced by the router, such as the average number of PATH, RESV, UPDATE, and TEAR-DOWN messages received by the router.

Elwalid also describes the routers as having a processing section that employs adaptive weight assignment with respect to the control messages to allocate processing

¹ Elwalid, col. 1, l. 10-12.

² Elwalid, col. 6, l. 27-28.

³ Elwalid, Abstract.

capacity, of the processing section, for the control messages.⁴ Elwalid assigns PATH & RESV messages to a first message class, UPDATE messages to a second message class, and TEAR-DOWN messages to a third message class.⁵ The router allocates weights to each message class, based in part upon link utilization for each message class.⁶ The weight of the message class then corresponds to a portion of the router processing section's processing capacity.⁷

Generally then, Elwalid relates to allocation of processing capacity of a router for RSVP control messages (as opposed to application data messages) according to weights assigned to the various control message classes, where the assigned weights for each control message class are based upon the link utilization for each control message class.

Applicants' Claim and Specification

By contrast, claim 1 of the present Application describes a method for dynamically adjusting reserved bandwidth in a data communications device while transporting a session of data communication within the device. The data communications device receives a **first RSVP bandwidth reservation request** associated with application data of a session of data communication, the first RSVP bandwidth reservation request distinct from the application data. For example, the "first RSVP bandwidth reservation request" may be, for example, an RSVP RESV message that indicates to reserve 5 MBps of bandwidth through the data communications device. The data communications device establishes a first bandwidth reservation associated with the **application data** of the session of data communication in the data communications device based upon the **first RSVP bandwidth reservation request** and transports, through the data communication device, application data associated with the session of data communication utilizing data storage locations associated with the first bandwidth reservation.

⁴ Elwalid, Abstract.

⁵ Elwalid, col. 6, l. 64-66.

⁶ Elwalid, Abstract.

⁷ Elwalid, Abstract.

The data communications device receives **bandwidth allocation adjustment information**, within a **second RSVP bandwidth reservation request**, associated with application data of the session of data communication and during the session of data communication, the second RSVP bandwidth reservation request distinct from the application data. For example, the “second RSVP bandwidth reservation request” may be, for example, an RSVP RESV message that indicates to reserve 10 MBps of bandwidth through the data communications device. As further claimed, the data communications device dynamically adjusts the first bandwidth reservation to produce a second bandwidth reservation for the application data of the session of data communication based upon the bandwidth allocation adjustment information within the second RSVP bandwidth reservation request while continually maintaining the session of data communication.

Accordingly, the present invention as claimed uses the **RSVP bandwidth reservation request** to establish a bandwidth reservation **associated with the application data** of the session of data communication. As clearly stated in the claim, RSVP bandwidth reservation request distinct from the application data.

Rejection under 35 U.S.C. §102(e)

Claims 1-32 were rejected under 35 U.S.C. §102(e) as being anticipated by Elwalid. However, to anticipate a claim, the cited reference must teach every element of the claim. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference."⁸ "The identical invention must be shown in as complete detail as is contained in the ... claim."⁹

The Office Action, however, has not established that Elwalid anticipates claims 1-12 of the present Application because Elwalid does not teach, disclose or suggest every element of the Applicants' claims.

⁸ *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

⁹ *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

The Office Action indicates that, in applying Elwalid to claim 1, an RSVP message transmitted using the RSVP protocol is the same as “application data” as claimed by the Applicants. As amended, claim 1 distinguishes “application data” from the RSVP message transmitted using the RSVP protocol. The first element of Applicants’ claim 1 describes the data communications device as:

“receiving a first RSVP bandwidth reservation request associated with application data of a session of data communication, the first RSVP bandwidth reservation request distinct from the application data.”

The second element of Applicants’ claim 1 describes the data communications device as:

“receiving bandwidth allocation adjustment information, within a second RSVP bandwidth reservation request, associated with application data of the session of data communication and during the session of data communication, the second RSVP bandwidth reservation request distinct from the application data.”

Claim 1, therefore, distinguishes the application data as **separate and distinct** from the **RSVP bandwidth reservation request**.

A detailed discussion of Elwalid is provided in the response to the first Office Action. Generally, Elwalid describes the use of the RSVP control messages to allocate bandwidth in the router for processing of those RSVP control messages based on the number or count of RSVP messages received. This is significantly different than the present claimed invention.

In particular, Elwalid does not teach the claimed limitations of receiving **bandwidth allocation adjustment information** (e.g., set application data stream XYZ to 10 MBps), within **a second RSVP bandwidth reservation request** (e.g., a PATH or RESV RSVP message), and then using the **bandwidth allocation adjustment information within the second bandwidth reservation request** to dynamically adjust the first bandwidth reservation to produce a second bandwidth reservation for the application data of the session of data communication while continually maintaining the session of data communication. As specifically stated in the claim, the data communications device of the present invention receives bandwidth allocation

adjustment information, within a second RSVP bandwidth reservation request, associated with application data of the session of data communication and during the session of data communication **where the second RSVP bandwidth reservation request distinct from the application data**. The data communications device dynamically adjusts the first bandwidth reservation to produce a second bandwidth reservation for the application data of the session of data communication based upon the bandwidth allocation adjustment information within the second RSVP bandwidth reservation request while continually maintaining the session of data communication.

Since Elwalid is related to adjusting bandwidth available for processing RSVP protocol messages themselves and does so using counts of the number of RSVP messages received, there is no discussion in Elwalid of how to adjust bandwidth for an application data session that uses RSVP as a mechanism to reserve bandwidth while continually maintaining the application data session. From the claimed subject matter, it is clear that the RSVP bandwidth reservation requests are different than the application data of the session of data communication. Since claim 1 contains limitations directed to this subject matter, it patentably distinguishes over Elwalid.

If the Examiner contends that the application data in Elwalid is the RSVP message itself, and the application data session is an RSVP session, there is still no teaching in Elwalid that information contained within a particular RSVP message is used to adjust bandwidth of the application data session (i.e., the RSVP session itself, as contended by the Examiner), all while continually maintaining the session of data communication. Again, Elwalid is related to adjusting bandwidth available for processing RSVP protocol messages themselves using counts of the number of particular RSVP messages received. It is unclear to the Applicants and it is certainly not taught, disclosed, or suggested in Elwalid, how Elwalid would use information contained within the RSVP message to adjust bandwidth reservations of the RSVP protocol data session itself, as indicated in the claim limitations discussed above. Accordingly, a contention that the application data session is the RSVP message itself still does not cause a reading of the disclosure in Elwalid to anticipate each of the limitations of present claimed invention. If the Examiner contends otherwise, Applicants respectfully request that

Examiner point out with particularity where each limitation as recited in Claim 1 is taught in Elwalid.

Because Elwalid does not teach all of the claimed elements of the Applicants' independent claim 1, claim 1 should be allowed to issue. Furthermore, claims 2-12 depend upon claim 1 and should also be allowed to issue as depending upon an allowable independent claim (i.e., for at least the reasons presented). Reconsideration of the rejection is respectfully requested.

Conclusion

In view of the foregoing remarks, this Application should be in condition for allowance. A Notice to this affect is respectfully requested. If the Examiner believes, after this Amendment, that the Application is not in condition for allowance, the Examiner is respectfully requested to call the Applicants' Representative at the number below.

As described above, a Petition for Extension of Time for one month and the appropriate fee are being filed concurrently with this Amendment. If the U.S. Patent and Trademark Office deems an additional fee necessary, this fee may be charged to the account of the undersigned, Deposit Account No. 50-0901.

If the enclosed papers or fees are considered incomplete, the Patent Office is respectfully requested to contact the undersigned collect at (508) 366-9600, in Westborough, Massachusetts.

Respectfully submitted,



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